Obstetrics/Gynecology

Reproductive Anatomy and Physiology

- Fetus - developing unborn baby
- Uterus - organ in which a fetus grows, responsible for labor and expulsion of infant.
- Birth Canal - vagina and lower part of the uterus.

Reproductive Anatomy and Physiology

- Placenta - fetal organ through which fetus exchanges nourishment and waste products during pregnancy.
- Umbilical cord - cord which is an extension of the placenta through which fetus receives nourishment while in the uterus.

Reproductive Anatomy and Physiology

- Amniotic sac - the sac that surrounds the fetus inside the uterus.
- Vagina - lower part of the birth canal.
- Perineum - skin area between vagina and anus, commonly torn during deliver.

Reproductive Anatomy and Physiology

- Crowning - the bulging-out of the vagina which is opening as the fetus' head or presenting part presses against it.
- "Bloody Show" - mucus and blood that may come out of the vagina as labor begins.

Reproductive Anatomy and Physiology

- Labor - the time and process beginning with the first uterine muscle contraction until delivery of the placenta.
  - Delivery is imminent
  - Crowning
  - In the process of delivering

Reproductive Anatomy and Physiology

- Presenting Part - the part of the infant/fetus that comes first - usually the head.
- Abortion - miscarriage - delivery of products of conception early in pregnancy.

Contents of a childbirth delivery kit

- Surgical scissors
- Hemostats or cord clamps
- Umbilical tape or sterilized cord
- Bulb syringe

Towels
2 x 10 gauze sponges
Sterile gloves
One baby blanket
Sanitary napkins

Plastic bag

Emergency Medical Care - Predelivery Emergencies

- Miscarriage - emergency medical care
  - Size up
    - Initial assessment
      - –History and physical exam
      - –Assess baseline vitals
      - –Treatment based on signs and symptoms
      - –Apply external vaginal pads
      - –Bring fetal tissues to hospital
      - –Support mother

Emergency Medical Care - Predelivery Emergencies

- Seizure during pregnancy - emergency medical care
  - Size up
  - Initial assessment
  - History and physical exam
  - Assess baseline vitals
  - Treatment based on signs and symptoms
  - Transport on left side

Emergency Medical Care - Predelivery Emergencies

- Vaginal bleeding - late pregnancy vaginal bleeding, with or without pain. Emergency medical care:
  - . Size up
  - . Initial assessment
  - . History and physical exam
  - . Assess baseline vitals
  - . Treatment based on signs and symptoms
  - . Apply external vaginal pads
  - . Transport

Emergency Medical Care - Predelivery Emergencies

- Trauma - emergency medical care - same as other trauma patients
  - Size up
  - Initial assessment
  - History and physical exam
  - Assess baseline vitals
  - Treatment based on signs and symptoms
  - Transport on left side

Normal Delivery

- Predelivery considerations
  - It is best to transport an expecting mother, unless delivery is expected within a few minutes based on assessment of:
    - –Are you pregnant?
    - –How long have you been pregnant?
    - –Are there contractions or pain?
    - –Any bleeding or discharge?

Normal Delivery

- Is crowning occurring with contractions?
- What is the frequency and duration of contractions?
- Does she feel as if she is having a bowel movement with increasing pressure in the vaginal area?
- Does she feel the need to push?
- Rock hard abdomen?

Normal Delivery

- Precautions
  - Use body substance isolation.
  - Do not touch vaginal areas except during delivery and when your partner is present.
  - Do not let the mother go to bathroom.
  - Do not hold mother's legs together.

Normal Delivery

- Recognize your own limitations and transport even if delivery must occur during transport.
- If delivery is eminent with crowning, contact medical direction for decision to commit to delivery on site. If delivery does not occur within 10 minutes, contact medical direction for permission to transport.

Delivery Procedures

- Apply gloves, mask, gown, eye protection for infection control precautions.
- Have mother lie with knees drawn up and spread apart.
- Elevate buttocks - with blankets or pillow.
- Create sterile field around vaginal opening with sterile towels or paper barriers.

Delivery Procedures

- When the infant's head appears during crowning, place fingers on bony part of skull and exert very gentle pressure to prevent explosive delivery. Use caution to avoid fontanelle.
- If the amniotic sac does not break, or has not broken, use a clamp to puncture the sac and push it away from the infant's head and mouth as they appear.

Delivery Procedures

- As the infant's head is being born, determine if the umbilical cord is around the infant's neck; slip over the shoulder or clamp, cut and unwrap.

Delivery Procedures

- After the infant's head is born, support the head, suction the mouth two or three times and the nostrils. Use caution to avoid contact with the back of the mouth.
- As the torso and full body are born, support the infant with both hands.
- As the feet are born, grasp the feet.
- Wipe blood and mucus from mouth and nose with sterile gauze, suction mouth and nose again.

Delivery Procedures

- Wrap infant in a warm blanket and place on its side, head slightly lower than trunk.
- Keep infant level with vagina until the cord is cut.
- Assign partner to monitor infant and complete initial care of the newborn.
- Clamp, tie and cut umbilical cord (between the clamps) as pulsations cease approximately 4 fingers width from infant.

Delivery Procedures

- Observe for delivery of placenta while preparing mother and infant for transport.
- When delivered, wrap placenta in towel and put in plastic bag; transport placenta to hospital with mother.
- Place sterile pad over vaginal opening, lower mother's legs, help her hold them together.
- Record time of delivery and transport mother, infant and placenta to hospital.

Delivery Procedures

- Vaginal bleeding following delivery - up to 500 cc of blood loss is normal following delivery.
  - A 500 cc blood loss is well tolerated by the mother following delivery. The EMT-Basic must be aware of this loss so as not to cause undue psychological stress on himself or the new mother.

Delivery Procedures

- With excessive blood loss, massage the uterus.
  - Hand with fingers fully extended.
  - Place on lower abdomen above pubis.
  - Massage (knead) over area.
- Bleeding continues - check massage technique and transport immediately, providing oxygen and ongoing assessment.

Delivery Procedures

- Regardless of estimated blood loss, if mother appears in shock (hypoperfusion), treat as such and transport prior to uterine massage. Massage en route.

Initial Care of The Newborn

- Position, dry, wipe, and wrap newborn in blanket and cover the head.
  - Repeat suctioning.
  - Assessment of infant - normal findings
    - Appearance - color: no central (trunk) cyanosis
    - Pulse - greater than 100/min

Initial Care of The Newborn

- Grimace - vigorous and crying
- Activity - good motion in extremities
- Breathing effort - normal, crying
- Stimulate newborn if not breathing.
  - –Flick soles of feet.
- Rub infant's back.

Initial Care of The Newborn

- Resuscitation of the newborn follows the inverted pyramid - after assessment, if signs and symptoms require either cardiac or pulmonary resuscitation, do the following when appropriate:

Initial Care of The Newborn

- Breathing effort - if shallow, slow or absent provide artificial ventilations:
  - 60/min
  - Reassess after 30 seconds.
- If no improvement, continue artificial ventilations and reassessments.

Initial Care of The Newborn

- Heart rate
  - If less than 100 beats per minute provide artificial ventilations:
    - 60/min
    - Reassess after 30 seconds.
    - If no improvement continue artificial ventilations and reassessments.

Initial Care of The Newborn

- If less than 80 beats per minute and not responding to bag-valve-mask, start chest compressions.
- If less than 60 beats per minute, start compressions and artificial ventilations.

Initial Care of The Newborn

- Color - if central cyanosis is present with spontaneous breathing and an adequate heart rate administer free flow oxygen - administer oxygen (10-15L) using oxygen tubing held as close as possible to the newborn's face.

Abnormal Deliveries

- Prolapsed Cord - condition where the cord presents through the birth canal before delivery of the head; presents a serious emergency which endangers the life of the unborn fetus.
  - Size up
  - Initial assessment
  - Mother should have high flow oxygen

Abnormal Deliveries

- History and physical exam
- Assess baseline vitals
- Treatment based on signs and symptoms
- Position mother with head down or buttocks raised using gravity to lessen pressure in birth canal.

Abnormal Deliveries

- Insert sterile gloved hand into vagina pushing the presenting part of the fetus away from the pulsating cord.
- Rapidly transport, keeping pressure on presenting part and monitoring pulsations in the cord.

Abnormal Deliveries

- Breech birth presentation - breech presentation occurs when the buttocks or lower extremities are low in the uterus and will be the first part of the fetus delivered.
  - Newborn at great risk for delivery trauma, prolapse cord more common, transport immediately upon recognition of breech presentation.
  - Delivery does not occur within 10 minutes.

Abnormal Deliveries

- Emergency medical care
  - Immediate rapid transportation upon recognition.
  - Place mother on oxygen.
  - Place mother in head down position with pelvis elevated.

Abnormal Deliveries

- Limb presentation - occurs when a limb of the infant protrudes from the birth canal. Is more commonly a foot when infant is in breech presentation.
  - Immediate rapid transportation upon recognition.
  - Place mother on oxygen.
  - Place mother in head down position with pelvis elevated.

Abnormal Deliveries

- Multiple births
  - Be prepared for more than one resuscitation.
  - Call for assistance.

Abnormal Deliveries

- Meconium - amniotic fluid that is greenish or brownish-yellow rather than clear; an indication of possible fetal distress during labor.
  - Do not stimulate before suctioning oropharynx.
  - Suction.
  - Maintain airway.
  - Transport as soon as possible.

Abnormal Deliveries

- Premature
  - Always at risk for hypothermia.
  - Usually requires resuscitation, should be done unless physically impossible.

Gynecological Emergencies

- Vaginal bleeding
  - Body substance isolation
  - Airway
- Trauma - external genitalia - treat as other bleeding soft tissue injuries; never pack vagina, provide oxygen and on-going patient assessment.

Gynecological Emergencies

- Alleged sexual assault - criminal assault situations require initial and on-going assessment/management and psychological care. Emergency medical care:
  - Body substance isolation
  - Airway
  - Non-judgmental attitude during SAMPLE focused assessment.

Gynecological Emergencies

- Crime scene protection.
- Examine genitalia only if profuse bleeding present.
- Use same sex EMT-Basics for care when possible.
- Discourage the patient to bathe, void, or clean wounds.
- Reporting requirements.